

The synthesis inhibitory composition to prevent corrosion of oilfield equipment

© **Rustem R. Daminev**,*⁺ **Aygul A. Islamutdinova**,*⁺
Aleksandr N. Ivanov, and **Ildar R. Hamzin**

*Department of General Chemical Technology, Branch of Ufa State Petroleum
Technological University in Sterlitamak. October St.t, 2. Sterlitamak, 453118. Russia.*

Phone: +7 (3473) 24-08-58. E-mail: aygul_ru@mail.ru

*Supervising author; ⁺Corresponding author

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Abstract

The corrosion inhibitor on the basis of the condensation products of polyethylene polyamine (PEPA) and 1,2-dichloroethane was received. The reaction was carried out in the apparatus equipped with a stirrer at a temperature of 75 °C for 4 hours. The resulting mixture was subjected to a single distillation to extract from the rest of the components that represent the greatest value in terms of defensive ability. The separation of the mixture was estimated by the change of the refractive index of the distillate. Inhibitory composition subjected to the study on the anticorrosion properties of the electrochemical method using analyzer corrosion rate "Monicor-2M". The obtained data on the value of the corrosion current is processed using specially developed software, which allows to calculate the magnitude of the protective ability of the inhibitor. Also its basic physical and chemical properties: appearance, density, solubility, and flashpoint was studied. Discovered that this inhibitor has high stopping power and can be used as corrosion inhibitor of oil field equipment.